Taylor, Trevor. ***Long-term vegetation response to fire of Willamette Valley wet prairie species.*** **Masters thesis, University of Oregon Department of Biology. June 1999.** (Reviewed by Charles Bosse)

Water systems and water system biology cover more than just rivers, lakes, streams and ponds. Wet prairies in Oregon have been reduced from covering much of the Willamette valley to covering less than 1000 acres, a reduction of about 99.9%. These wet prairies are important to river ecology. Most streams naturally flow through wetlands and wet prairies and spread out over a wide area, not confined to a specific channel. When the wet prairie is destroyed or the stream is straightened and taken out of the wet prairie, both the habitat of the stream and the prairie suffer.

Critique

I thought this particular study was interesting because it meets at the convergence of water, earth, air and fire. The study looks into the need of wet prairies to have regular fires to sustain their health, and in turn, the health of the river. It is also a good example of how new knowledge is rolling over traditional beliefs. The study talks about the need for fire, but people believed that fire was simply bad for an ecosystem until recently. The study also talks about the rich biodiversity and environmental need for places like this to exist, and the need of the native species to continue to have certain conditions in order to outgrow invasive exotics. The report deals significantly with things that are not yet well understood in these ecosystems and recommends further research, as well as cautioning against using fire, or any other method that is not yet well understood, as an “end all be all” solution.

This report is fairly specific, and doesn't necessarily explain its own usefulness well. It does, however, contain a lot of information about plant and habitat responses to fire, which is a hot topic under debate in the ecological community right now. The thesis also includes good references, with informative notes as to what those references actually contain and how they would be useful. Data are extensive, and laid out readably and scientifically, with well-explained and thorough analysis. For a scientific report, it is easy to read and understandable (not as easy to read as a summary but something that is easily understandable to a non-expert). The data are also useful in order to simply better understand the kinds and variety of vegetation in Willamette Valley wet prairie. I think this resource would be even more valuable in conjunction with other large scale scientific projects like the information available on the Eugene Wetlands projects. (REF 574.526325 in the Eugene Library).

return to info sources page

return to home page